

(November 17, 1997)

Geosynthetic Properties for Reinforced Slopes

Wide strip geosynthetic strengths are minimum average roll values (i.e., the average test results for any sampled roll in a lot shall meet or exceed the values shown in the table). These wide strip strength requirements apply only in the geosynthetic direction perpendicular to the slope face. Wide width tensile strength testing is in conformance with the most recently approved ASTM geosynthetic test procedure, except for geosynthetic sampling and specimen conditioning, which are in accordance with WSDOT Test Methods 914 and 915, respectively.

ASTM D4595 shall be modified to address geogrids as follows: The minimum specimen width shall be 8 inches with a minimum gauge length of 4 inches. The gauge length shall be a minimum of two grid apertures long. The gauge length shall be in increments of whole grid apertures. For the purpose of calculating tensile strength, the specimen width shall be considered to be the distance between the outermost ribs of the specimen as measured at the midpoint of those ribs plus the average center to center spacing between ribs.

Table 10: Long-term tensile strength, T_{al} , required for geosynthetic reinforcement used in geosynthetic reinforced slopes.

³ Slope Location	Vertical Spacing of Primary Reinforcement Layers	Primary Reinforcement Layer Distance from Top of Reinforced slope	^{1,2} Minimum Long-Term Tensile Strength, T_{al} , for Primary Reinforcement	¹ Minimum Ultimate Tensile Strength (ASTM D4595) for Secondary Reinforcement
\$1\$	***\$2\$***	***\$3\$***	***\$4\$***	115 lbs/in.

¹These long-term tensile strength requirements apply only in the geosynthetic direction perpendicular to the slope face.

² T_{al} shall be determined in accordance with WSDOT Test Method 925.

³Reinforced slopes ***\$5\$*** are classified as Class ***\$6\$*** structures.